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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/446,681	03/14/2000	JOHN ANTHONY CHARLES ARCHER		2724
110	7590	05/18/2004	EXAMINER	
DANN, DORFMAN, HERRELL & SKILLMAN 1601 MARKET STREET SUITE 2400 PHILADELPHIA, PA 19103-2307			VOGEL, NANCY S	
		ART UNIT	PAPER NUMBER	1636
DATE MAILED: 05/18/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/446,681	ARCHER ET AL.
	Examiner	Art Unit
	Nancy T. Vogel	1636

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 1/2/04.  
 2a) This action is **FINAL**.      2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 30-35,37,49-52,54-57 and 59-61 is/are pending in the application.  
 4a) Of the above claim(s) 31 and 49 is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 30,32-35,37,50-57 and 59-61 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All . b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1)  Notice of References Cited (PTO-892)  
 2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_.  
 4)  Interview Summary (PTO-413)  
 Paper No(s)/Mail Date \_\_\_\_\_.  
 5)  Notice of Informal Patent Application (PTO-152)  
 6)  Other: \_\_\_\_\_.

**DETAILED ACTION**

This office action is in response to applicant's amendment submitted 1/2/04. Receipt of the Declaration on 2/20/04 is acknowledged.

Claims 30-35, 37, 49-52, 54-57, 59-61 are pending in the case. Claims 31 and 49 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the paper submitted 1/10/02..

***Claim Objections***

Claim 51 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

This objection is maintained for the reasons made of record in the previous office action, mailed 4/22/03.

Applicants have argued that the scope of claim 51 is different than that of claim 52 since "[c]laim 51 relates to any nucleotide sequence which encodes the recited amino acid sequence", citing the degeneracy of the genetic code.

However, claim 51 reads "A nucleic acid molecule as claimed in claim 50 wherein the nucleotide sequence (SEQ ID NO:1) encodes the amino acid sequence...". Clearly, a single nucleotide sequence of SEQ ID NO:1 is recited. Therefore, the objection is maintained.

*replace page + hand in  
Amendment*

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 30, 32, 33-35, 37, 50-52, 54-57, 59-61 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 51, and by dependence, claims 30, 32, 33-35, 37, 50-52, 54-57, 59-61, are vague and indefinite in its recitation of “[a] nucleic acid molecule as claimed in claim 50 wherein the nucleotide sequence (SEQ ID NO:1) encodes an amino acid sequence shown in Fig. 4 from nucleotide base 295 to nucleotide base 1035”, since it appears to state that SEQ ID NO:1 is the nucleotide sequence which is being claimed. Presumably, applicants intend to claim the nucleic acid molecule consisting of nucleotides 295 to 1035 of SEQ ID NO:1. This rejection is maintained for the reasons set forth in the previous office action mailed 4/22/03, slightly modified to account for applicants' amendments to the claim.

Claim 55 is vague and indefinite in its recitation of “the inducible promoter region is the ohp promoter region which lies between genes orfR regulatory gene (nucleotide base 1035) and orfT transport (nucleotide base 1450)...” It is not clear what the nucleotide base numbers correspond to. Presumably, applicants intend that the inducible promoter region being claimed begins at nucleotide

1035 and ends at nucleotide 1450 of SEQ ID NO:1. However, the claim does not clearly state this, since the recited nucleotide numbers appear to modify the recited genes.

***Conclusion***

No claims are allowed.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nancy T. Vogel whose telephone number is (571) 272-0780. The examiner can normally be reached on 6:30 - 3:00, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Irem Yucel, Ph.D. can be reached on (571) 272-0781.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

5/12/04



TERRY MCKELVEY  
PRIMARY EXAMINER